Hertfordshire and West Essex Integrated Care System

NHS Hertfordshire and West Essex Integrated Care Board

Evidence Based Intervention

Injections and Radiofrequency Denervation for non-specific back pain

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Policy: Injections and Radiofrequency Denervation for non-specific back pain

This policy covers invasive treatments of non-specific low back pain[4] in secondary care, excluding surgical intervention and spinal cord stimulation. It is a local policy supplement to the following national EBI Programme guidance found at https://ebi.aomrc.org.uk/:

- Injections for non-specific back pain without sciatica – EBI list 1
- Lumbar radiofrequency facet joint denervation – EBI list 2

Other related national EBI programme guidance includes:

- Low back pain imaging – EBI list 2
- Lumbar discectomy – EBI list 2
- Vertebral augmentation for painful osteoporotic vertebral fractures – EBI list 2
- Fusion surgery for mechanical axial low back pain – EBI list 2

Other related local EBI policies:

- Spinal cord stimulation
- Epidurals for radiculopathy

This policy does not apply to children 16 or younger, or patients with other causes of low back pain[4], such as:

- progressive neurological deficit,
- cauda equina syndrome,
- metastatic spinal cord compression in adults,
- spinal injury,
- suspected cancer
- spondyloarthritis

Spinal injections

In line with the national EBI programme guidance (list 1), facet joint injections for non-specific low back pain are **not** routinely commissioned.

In the rare circumstance that a patient meets the guidance criteria for radiofrequency denervation, but the procedure is contraindicated (e.g. presence of pacemaker/ICD/ complex spinal anatomy/ presence of spinal metal work), and the clinician recommends facet joint injections, an individual funding request should be submitted.

Epidurals

The ICB **will not** routinely fund epidural injections for patients with non-specific low back pain.[1]
For radiculopathy, please refer to local EBI policy on Epidurals for Radiculopathy.

Medial Branch Blocks

Medial branch blocks will only be commissioned when **ALL** of the criteria below are met:

- The procedure is intended as a **diagnostic test** to localise the source of lower back pain to assess suitability for radiofrequency denervation [4].
- The patient is 16 years or older [4].
- The pain has lasted for more than 12 months duration

- The main source of pain is thought to be from structures supplied by the medial branch nerve (i.e. arising from one or more facet joints) [1,3,4]
- The patient has moderate or severe levels of localised back pain (rated as 5/10 or more on a visual analogue scale, or equivalent) at the time of referral [1,3,4].
- There has been a failure of non-invasive management[3] as per local pathways and Appendix 2[*]:
    - Guided self-management, exercise programme +/- manual therapy +/- psychological therapies OR
    - Low intensity combined physical and psychological programme (CPPP)
    - Comprehensive CPPP or standard pain management programme (PMP)
- The patient has been reviewed by a specialist clinician/physiotherapist trained in spinal assessment and this treatment is considered necessary to enable full participation with a rehabilitation programme.
- Where available, the patient agrees to participate in multidisciplinary rehabilitation **post** ablation in increase likelihood of sustained benefit[3].

[*]It is accepted that many patients may not be able to comply with all aspects of conservative management because of pain and medial branch blocks +/- RFD may help them to engage with other conservative measures.

Therapeutic medial branch blocks (which typically use a higher volume of dilute local anaesthetic and steroid) are not routinely commissioned. Therapeutic blocks are inappropriate for establishing if radiofrequency ablation should be offered.

Repeat medial branch blocks

Repeat **diagnostic** medial branch blocks at a new site will be considered where the criteria above are met.

Repeat **diagnostic** medial branch blocks at the **same site** are **not** routinely commissioned.

In the unusual circumstance that a repeat diagnostic medial branch block is thought to be necessary due to diagnostic uncertainty, an individual funding request (IFR) should be submitted.

Some patients may experience a prolonged response to medial branch blockade such that further interventional treatment is no longer required. However, a prolonged initial response is not an indication for further, therapeutic, medial branch block if the pain returns.

If a patient has previously had a therapeutic medial branch block (despite not being routinely commissioned), and now requires a diagnostic medial branch block at the same site, any application for diagnostic medial branch block must provide information on where and when the previous therapeutic medial branch block was undertaken.

Radiofrequency (RF) Denervation

Radiofrequency denervation will be commissioned when all of the following criteria have been met:

- All of the above diagnostic medial branch block criteria have been met.
- There has been a positive response to a diagnostic medial branch block[1,3,4].
- The patient has been referred after assessment by a specialist orthopaedic or MSK service.

Imaging should not be offered as a pre-requisite for radiofrequency denervation in patients with non-specific low back pain with specific facet joint pain.[1,3,4]

Radiofrequency denervation **will not** be funded for patients who have radicular pain without low back pain. [4]

Repeat Denervation

Repeat denervation at a new site **will** be considered where the criteria above and in the national EBI programme are met.

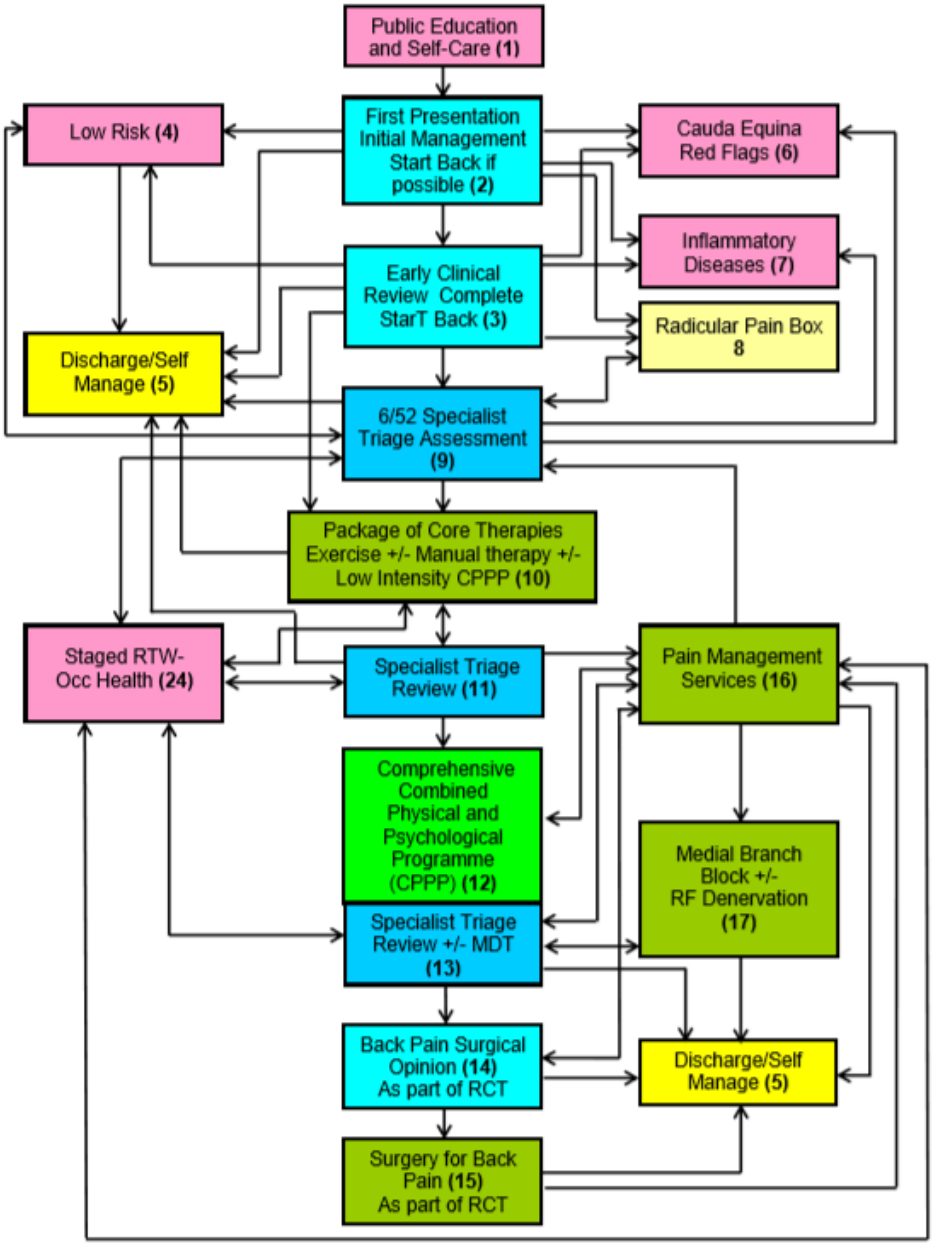
Repeat denervation at the same site is **not routinely** funded.

Please note that the ICB will not fund any other spinal injections for patients with non-specific back pain

Patients who are not eligible for treatment under this policy may be considered on an individual basis where their GP or consultant believes exceptional circumstances exist that warrant deviation from the rule of this policy. Individual cases will be reviewed as per the ICB policy.

Appendix 1

The Back Pain Pathway Flowchart



Source: extracted from the National Low Back and Radicular Pain Pathway 2017, page 14(3).

Appendix 2:
Non-invasive management

A list of non-invasive treatments for low back pain and sciatica approved by NICE and recommended by the National Low Back and Radicular Pain Pathway.
NICE approves the following non-invasive treatments for low back pain and sciatica[4]:

- Guided self-management.
- Exercise (ideally group programme)
- Manual therapy (spinal manipulation, mobilisation or soft tissue techniques such as massage) for managing low back pain with or without sciatica, but only as part of a treatment package including exercise, with or without psychological therapy.
- Psychological therapies using a cognitive behavioural approach for managing low back pain with or without sciatica but only as part of a treatment package including exercise, with or without manual therapy (spinal manipulation, mobilisation or soft tissue techniques such as massage).
- Consider a combined physical and psychological programme, incorporating a cognitive behavioural approach (preferably in a group context that takes into account a person's specific needs and capabilities), for people with persistent low back pain or sciatica:
  - when they have significant psychosocial obstacles to recovery (for example, avoiding normal activities based on inappropriate beliefs about their condition) or when previous treatments have not been effective
- Return-to-work programmes (promote and facilitate return to work or normal activities of daily living).
- Pharmacological interventions

The National Back Pain Pathway also recommends(3):

- Public Education and self-care
- GP or over the counter medication
- Self-directed exercise programme
- Self-directed relaxation techniques
- Self-directed return to normal social and occupational activities
- Core therapies:
  - Exercise
  - +/- Manual therapy
  - +/- Low intensity CPP as appropriate
- Comprehensive multi-disciplinary M-CPPP or Pain Management Programme

Appendix 3

Back pain injections are commonly defined in terms of the anatomical structures targeted and whether the drug injected is being used for therapeutic or diagnostic effect.
The types of injections are:

- Therapeutic facet joint injections including: intra-articular facet joint injection, medial branch block injection
- Therapeutic epidural injections including (according to where the epidural space is accessed) which could be lumbar epidural or caudal epidural injections
- Diagnostic which helps in to determine the anatomic origin of the patient's pain

See Table 1 for definitions

Table 1: Glossary

Clinical features suggestive of a facet joint component [3]	• "Increased pain unilaterally or bilaterally on lumbar para-spinal palpation • Increased back pain on 1 or more of the following: - Extension (more than flexion) - Rotation - Extension/side flexion - Extension/rotation AND - No radicular symptoms - No sacroiliac joint pain elicited using a provocation test."
Epidural injection	"An epidural is an injection in the back to stop you feeling pain in part of your body. Steroid medication can also be given as an epidural injection to treat back or leg pain caused by sciatica or a slipped (prolapsed) disc. The epidural can be inserted at different levels of your back depending on the area of the body that requires pain relief. There are different types of epidural depending on the approach taken: caudal, interlaminar and transforaminal."
Facet joint	"The spine is a column of bones arranged one on top of the other. The bones are linked at the back by joints called facet joints, on each side. The facet stabilises the spine, while also allowing movement"
Facet joint injection	"Under x-ray control, local anaesthetic (to reduce pain in the short-term) and corticosteroid (to reduce pain and inflammation in the long-term) are injected into the targeted facet joints."
Lower back pain	"Lower back pain is felt in the area between the bottom of the ribcage and the top of the legs. It's the most common type of back pain. Symptoms range from tension and stiffness to pain and soreness.
Non-specific back pain	Non-specific low back pain is diagnosed when the pain cannot be attributed to a specific cause, although in many cases, may be related to trauma, or musculoligamentous strain. Most people's back pain is described as non-specific, meaning it's caused by a minor problem with the structures in the back (such as a strain) rather than anything serious. The back is a complex area of muscles, nerves, bones and joints, and is continuously working hard to support the weight of the upper body. It's often unclear why lower back pain occurs, but it can sometimes be triggered by things like bending awkwardly, lifting incorrectly, standing for long periods of time, slouching when sitting, and driving for long periods. Sometimes lower back pain will come and go over time

Medial branch blocks(6)	“Facet joint medial branch blocks is a procedure in which nerve fibres supplying the painful facet joints are blocked by local anaesthetic injections.”
Radiofrequency denervation(9)	“Radiofrequency denervation is a specialised injection, which uses heat to alter the function of the nerves that supply the facet joints in your back. These nerves transmit the pain signals from these joints to your brain. The procedure carried out using X rays to guide the injections, in a similar way to diagnostic tests. Radiofrequency denervation of the nerves is performed by placing special needles alongside the nerves to the facet joints, then passing an electric current through each needle. This creates heat at the needle tip, which results in a change to the structure and function of the nerve. This can lead to a reduction of pain.”
Sciatica or radiculopathy [7]	“Sciatica is pain caused by irritation or compression of the sciatic nerve. The sciatic nerve is the longest nerve in your body, and runs from the back of your pelvis, through your buttocks and down both legs, ending at your feet. When something compresses or irritates the sciatic nerve, it can cause pain, numbness and a tingling sensation that travels from your lower back down your leg. The most common cause of sciatica is a slipped (or prolapsed) disc. This occurs when one of the discs that sit between and cushion the bones in the spine is damaged and presses on nearby nerves. Most cases will pass in a few weeks or months, although it may come and go over time. Treatments such as staying active, painkillers, and back exercises or stretches often help. In rare cases, surgery may be needed.”
Spinal cord stimulation (neuromodulation)(10)	Spinal cord stimulation is a method that can be used to relieve pain. A small device that produces mild electrical pulses is placed inside the body by an operation. These pulses are sent to the spinal cord, causing a ‘stimulation’ effect, which changes the way a person feels pain. The feeling of pain is masked with a tingling sensation in the area of the body that normally hurts. The amount of pain relief that a person feels with spinal cord stimulation varies from person to person. As pain changes (improves or gets worse), the level of ‘stimulation’ can be adjusted. The device can also be taken out of the body at a later date if necessary.
Steroid injections (11)	“Steroid injections, also called corticosteroid injections, are anti-inflammatory medicines used to treat a range of conditions. Steroids are a man-made version of hormones normally produced by the adrenal glands, two small glands found above the kidneys. When injected into a joint or muscle, steroids reduce redness and swelling (inflammation) in the nearby area. This can help relieve pain and stiffness.”

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Change History:

Version	Date	Reviewer(s)	Revision Description
V1.1	November 2023	M Skerry	Removed reference to CCG.
V2.0	March 2025	S Chepkin	Removed criteria for IFR for repeat denervation. Addition that therapeutic MBB are not routinely funded and are not suitable for informing RFD. Clarification that repeat diagnostic MBB at the same site are not routinely funded. Addition that diagnostic MBB can be offered after a previous (non-commissioned) therapeutic MBB but information on where and when the therapeutic MBB was undertaken must be provided.

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